Application No.: 09/892,476
Amendment dated January 21, 2004

Reply to Office Action dated October 27, 2003

Listing Of Claims:

1. (Currently Amended) An in-plane switching mode LCD device comprising: first and second substrates;

gate and data lines defining a pixel region on the first substrate;

a plurality of common and data electrodes formed to cross one another within the pixel region at constant intervals;

Docket No.: 8733.481.00-US

a common line formed in parallel with the gate line, the common electrodes being diverged from the common line;

- a thin film transistor formed in a crossing portion of the gate and data lines; and
- a liquid crystal layer formed between the first and second substrates,

wherein the data electrodes are connected with the thin film transistor at one side and the data electrodes overlap the common line at a minimum area so as to maintain an electric field generated between the common electrodes and the data electrodes in a same direction as a rubbing direction and edges of the data electrodes are located on an inner portion of the common line wherein edges of the data electrodes located away from the common line are rounded.

- 2. (Previously Presented) The in-plane switching mode LCD device of claim 1, wherein the plurality of common electrodes include a first common electrode formed in parallel with the data line and diverged from the common line within the pixel region; a second common electrode formed with at least one data electrode interposed between the first common electrode and the second common electrode in parallel with the first common electrode and diverged from the common line; and a third common electrode formed with at least one data electrode interposed between the second common electrode and the third common electrode, the second common_electrode having one end connected with one end of the second common electrode.
- 3. (Previously Presented) The in-plane switching mode LCD device of claim 2, wherein the data electrodes include a first data electrode having one side connected with the thin film transistor and the other side extended to an upper portion of the common line, and a second data electrode formed between the second common electrode and the third common electrode, wherein the second data electrode is connected with the first data electrode at the upper portion

Application No.: 09/892,476

Amendment dated January 21, 2004

Reply to Office Action dated October 27, 2003

of the common line and with the one side of the first data electrode.

4. (Withdrawn) The in-plane switching mode LCD device of claim 3, wherein the first and second data electrodes on the common line are separated from each other.

Docket No.: 8733.481.00-US

- 5. (Currently Amended) The in-plane switching mode LCD device of claim 1, wherein [[the]] an overlap of the data electrodes with the common line form forms edge portions that are selectively located inside and outside the common line.
- 6. (Previously Presented) The in-plane switching mode LCD device of claim 5, wherein the selective inside and outside locations of the edge portions are based upon a rubbing direction.
- 7. (Withdrawn) The in-plane switching mode LCD device of claim 5, wherein the edge of the data electrode located inside the common line is further from the edge of the common line than the edge of the data electrode located outside the common line.
- 8. (Cancel)
- 9. (Withdrawn) The in-plane switching mode LCD device of claim 1, wherein the data electrodes have one side connected with the thin film transistor and the other side overlapped with the common line and the gate line.
- 10. (Currently Amended) An in-plane switching liquid crystal display device, comprising: a plurality of parallel data lines;
- a plurality of gate lines, crossing the data lines, such that a pixel region is defined by the data and gate lines;
- a thin film transistor comprising source, drain and gate electrodes formed at a crossing point of the data and gate lines;
 - a common line within the pixel region;

Application No.: 09/892,476 Docket No.: 8733.481.00-US

Amendment dated January 21, 2004
Reply to Office Action dated October 2

Reply to Office Action dated October 27, 2003

a plurality of common electrodes extending in a direction perpendicular to the common line;

a plurality of data electrodes parallel to the common electrodes, wherein first ends of the data electrodes are connected to the drain electrode of said thin film transistor, second ends of the data electrodes are located on an inner portion of the common line wherein edges of the data electrodes located away from the common line are rounded in a same direction as a rubbing direction, and wherein the data electrodes and the common electrodes forming form an alternating pattern; and

a transverse data electrode overlying the common line and connecting second ends of the data electrodes, the transverse data electrode having a first portion having a first width and a second portion having a second width, wherein the first width is less than the second width;

wherein the first width is sufficiently narrow that disclination disclination is removed.

11. (Previously Presented) The in-plane switching liquid crystal display device of claim 10, wherein first ends of the common electrodes intersect the common line,

wherein at least one corner portion of a vertex of each of the intersections of the common electrodes and the common line is rounded, and

wherein at least one corner portion of a vertex of a connecting point of the second ends of the data electrodes and the transverse data electrode are substantially rounded.

- 12. (Previously Presented) The in-plane switching liquid crystal display device of claim 11, wherein the first portion of the transverse data electrode converges with the at least one corner portion of the vertex of each of the intersections of the common electrodes and the common line.
- 13. (Currently Amended) The in-plane switching liquid crystal display device of claim 12, further comprising a transverse common electrode connected to second ends of the common electrodes, wherein at least one corner portion of a vertex of the intersections of the second ends of the common electrodes and the transverse common electrode isare are rounded.

Application No.: 09/892,476 Docket No.: 8733.481.00-US

Amendment dated January 21, 2004

Reply to Office Action dated October 27, 2003

14. (Original) The in-plane switching liquid crystal display device of claim 13, wherein the second ends of the data electrodes connect to a second transverse data electrode, the second transverse data electrode having a third portion having a third width and a fourth portion having a fourth width, wherein the third width is less than the fourth width.

- 15. (Previously Presented) The in-plane switching liquid crystal display device of claim 14, wherein the third portion of the second transverse data electrode converges with the at least one corner portion of the vertex of the intersections of the second ends of the common electrodes and the transverse common electrode.
- 16. (Withdrawn) An in-plane switching liquid crystal display device, comprising:
 - a plurality of parallel data lines;
- a plurality of gate lines, crossing the data lines, such that a pixel region is defined by the data and gate lines;
- a thin film transistor comprising source, drain and gate electrodes formed at a crossing point of the data and gate lines;
 - a common line within the pixel region;
- a plurality of common electrodes extending in a direction perpendicular to the common line;
- a plurality of data electrodes parallel to the common electrodes, first ends of the data electrodes connected to the drain of said thin film transistor, the data electrodes and the common electrodes forming an alternating pattern; and
- a transverse data electrode overlying the common line and connecting respective ends of the data electrodes;

wherein a first distance between an edge of the transverse data electrode in a first region and an edge of the common line in the first region is greater than a second distance between the edge of the common line in a second region and the edge of the transverse data electrode in the second region.

17. (Withdrawn) The in-plane switching liquid crystal display device of claim 16, wherein

Application No.: 09/892,476 Docket No.: 8733.481.00-US

Amendment dated January 21, 2004 Reply to Office Action dated October 27, 2003

the first distance is greater than the second distance by 50%.

18. (Withdrawn) The in-plane switching liquid crystal display device of claim 16, wherein the first distance is sufficiently large so that the disclination is substantially removed.

19. (Withdrawn) An in-plane switching liquid crystal display device, comprising:

a plurality of parallel data lines;

a plurality of gate lines, crossing the data lines, such that a pixel region is defined by the data and gate lines

a thin film transistor comprising source, drain and gate electrodes formed at a crossing point of the data and gate lines;

a common line within the pixel region;

a plurality of common electrodes extending in a direction perpendicular to the common line;

a plurality of data electrodes parallel to the common electrodes, the data electrodes and the common electrodes forming an alternating pattern, each of the data electrodes having a first end, a main part and a second end, the first ends electrically connected to the drain of said TFT, the main parts having a first width, at least one of the respective second ends overlying the common line and having a second width, the at least one second end having at least one edge overlapping an edge of the common line, the first width being less than the second width; and

a transverse data electrode overlying the common line and connecting second ends of the data electrodes, the transverse data electrode having a first portion having a first width and a second portion having a second width, wherein the first width is less than the second width;

wherein the first width is sufficiently narrow that disclination is removed.

20. (Withdrawn) The in-plane switching liquid crystal display device of claim 21, wherein respective second ends of the data electrodes that overlie the common line are not connected to each other on the common line.